REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-13, 15 and 16 are all the claims currently pending in the application. In response to the Office Action, Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-7, 10, 15, and 16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Danneels et al (U.S. Patent No. 5,663,951, hereafter "Danneels"), in view of Ishibashi et al, ("A Synchronization Mechanism for Continuous Media in Multimedia Communication", INFOCOM '95. Fourteenth Annual Joint Conference of the IEEE Computer and Communications Societies. Bringing Information to People. Proceedings. IEEE 2-6 April 1995 Page(s): 1010 - 1019 vol. 3, hereafter "Ishibashi") and Miao (U. S. Patent No. 7,280,650)[2].

Claims 8 and 9 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Danneels in view of Ishibashi and Miao, and further in view of Little et al. ("Network and Operating Systems Support for Digital Audio and Video: Proceedings, 5th International Workshop on Network and Operating Systems Support for Digital Audio and Video, Springer 1995", hereafter "Little").

Claims 11-13 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Danneels in view of Ishibashi and Miao and further in view of Keshab et al. ("Digital Signal

[2] In the previous Amendment filed on December 11, 2009, Applicant noted that on page 2 of the Office Action dated October 5, 2009, the Examiner stated that claims 1-7, 10, and 15 were rejected based on Danneels and Miao. However, the claims were actually rejected based on the combination of Danneels, Ishibashi, and Miao. Applicant requested that the Examiner clarify this discrepancy. However, in the current Office Action, the Examiner repeats the error. Applicant again requests that the Examiner correct this discrepancy.

Processing for Multimedia systems", CRC Press 1999, pg. 245 and 274, hereafter "Keshab"). Applicant respectfully traverses the prior art rejections.

Independent claim 1 (as amended) reads:

> Audio and video data processing device ~~(D1)~~ for multimedia communication, via an asynchronous network ~~(N)~~ with random transmission times, between a first pair consisting of a first audio communication terminal ~~(TM1)~~ and a first video communication terminal ~~(PC1)~~, a second pair consisting of a second audio communication terminal ~~(TM2)~~ and a second video communication terminal ~~(PC2)~~, the said terminals being of the LAN type, where at least the first pair consists of independent and asynchronous terminals, and the processing device includes, in association with this first pair, connection means ~~(ML1)~~ for the setting up of:
>
> a video link ~~(L2)~~ between these connection means ~~(ML1)~~ and the video terminal ~~(PC1)~~ of the first pair,
>
> an audio link ~~(L1)~~ between these connection means ~~(ML1)~~ and the audio terminal ~~(TM1)~~ of the first pair,
>
> a video link ~~(L3-2)~~ between these connection means ~~(ML1)~~ and the second pair ~~(TM2, PC2)~~, and
>
> an audio link ~~(L3-1)~~ between these connection means ~~(ML1)~~ and the second pair ~~(TM2, PC2)~~,
>
> wherein the connection means synchronizes audio and video data according to a delay.

In the previous Office Action dated October 5, 2009, the Examiner cited column 2, lines 5-11 of Danneels as allegedly teaching the feature "the connection means synchronizes audio and video data according to a delay", as recited in claim 1.

In the previous Amendment filed on December 11, 2009, Applicant submitted that Danneels does not synchronize audio and **video** data according to a delay. First, Danneels

distinguishes between audio, video and data (see column 4, lines 42-44 of Danneels). Danneels teaches that when data is transmitted from a local node to a remote node, a first subset of the **data** packets is transmitted to the remote node and then a subsequent subset of the **data** packets is transmitted from the local node to the remote node after a delay in order to prevent the **data** packets from overloading the remote node (see column 1, lines 61-65 of Danneels). At best, Danneels delays a portion of the **data** packets that are to be transmitted to a remote node. However, Danneels does not synchronize audio and video data based on a delay

The Examiner appeared to recognize the failure of Danneels to teach this feature of the claim, since the Examiner then contradicted himself and acknowledged that Danneels does not in fact "the connection means synchronizes audio and video data according to a delay", as claimed[3]. The Examiner then relied on Miao to allegedly remedy this deficiency. However, Applicant submitted that Miao merely teaches that a conferencing server may determine a delay parameter for one or more streams of data. The conferencing server may attempt to synchronize the streams using the delay parameter, and may introduce a predetermined amount of delay into one or more of the streams to coincide with the delay of the other streams. Accordingly, Miao delays one stream of data to synchronize that stream of data with the delay of other streams of data (in fact, Miao teaches synchronizing three streams of voice information). However, Miao does not teach or suggest that an audio stream and a video stream are synchronized according to a delay as claimed.

In response, the Examiner merely dismissively asserts:

[3] The Office Action dated October 5, 2009 at page 4.

> Examiner replies that per Applicant's arguments, Miao teaches that a conferencing server may determine a delay parameter for one or more streams of data which, using the broadest reasonable interpretation consistent with the specification can be data streams of audio and video, as both are inherently streams of data.[4]

Applicant respectfully disagrees with the Examiner, and submits that the Examiner's position is erroneous, unreasonable, and completely inconsistent with the claimed invention and the original specification.

According to an exemplary embodiment of the present invention, since the transmission of audio packets are usually faster than the transmission of video packets (see for example, page 10 of the specification as filed), the present invention synchronizes the **audio data and the video data** by determining a transmission time difference between the audio and video data, and making up the time difference by delaying transmission of the audio data to the receiving audio communication terminal (see for example, pages 3-4 of the specification as filed). When the video data and audio data are transmitted to a receiving terminal, the video data is transmitted immediately (that is, without delay) to a transmission link, while the related audio data is stored in a buffer for a time equal to a calculated delay, and is then transmitted to the receiving terminal.

Miao, on the other hand, attempts to compensate for delays in voice communication that occur when one party to a conference session receives voice information at a time that is different than another party to the same session (see column 4, lines 1-9 and 39-52). Accordingly, a conferencing server synchronizes three streams of **voice information** by

[4] The Office Action dated February 19, 2010 at page 2.

determining a delay parameter for one of the three streams of **voice information** (column 7, lines 41-45). If a second stream of voice information from a call terminal (104) has more delay than a first stream of voice information from another call terminal (102), a delay management module (DMM) determines a delay for the second stream of voice information. A synchronization buffer may be used to delay voice information received from call terminal 102 by an amount of time determined by the delay parameter. This is done in order that each of the operators may speak and listen as if they were having a natural conversation (see column 7, lines 36-60 of Miao).

Accordingly, Miao is focused on synchronizing **voice information**, and not on synchronizing **audio and video** data according to a delay, as claimed. Therefore, regardless how broadly the Examiner interprets the claimed invention, Miao does not teach or suggest this feature of the claim.

Further, Applicant again respectfully submits that one of ordinary skill in the art would not have been motivated to combine Danneels, Ishibashi, and Miao in view of their diverse teachings and their different objectives.

First, Ishibashi relates to the continuous synchronization of master streams and slave streams (Ishibashi does not indicate what the two data streams represent) by delaying the arrival of one of the streams. Ishibashi differs structurally from Danneels in that in the Ishibashi system the source comprises two or more terminals, and the destination comprises a single terminal, while in Danneels, the communication is between two single terminals. Accordingly, Danneels and Ishibashi do not complement each other.

Moreover, the two references teach away from each other in that Ishibashi teaches synchronizing the two data streams so that they arrive at a destination simultaneously (see section 3), while Danneels teaches delaying subsets of data packets so that they do **not** arrive at their destinations simultaneously (thus preventing overloading) (see column 1, lines 61-65 of Danneels). The references are directed to completely different objectives such that there is no reason to combine or modify their teachings in view of each other.

Further with respect to dependent claim 16, Applicant respectfully submits that there is no teaching or suggestion in the cited references that "the video data is transmitted from one of the first video communication terminal and the second video communication terminal to a receiving terminal one of the first video communication terminal and the second video communication terminal without delay, and the audio data is delayed by a predetermined time before being transmitted to a receiving audio communication terminal", as claimed.

Applicant notes with interest that, although the Examiner states that "Danneels modified" allegedly teaches the features of claim 16[5], the Examiner provides no specific in the references for the elements of claim 16 but merely asserts that "the delays between the video and audio streams are relative". Applicant finds the Examiner's position extremely unclear, since it is impossible to ascertain what the delays are "relative" to. Nevertheless, the Examiner's stated rejection is improper, since a claim rejection under 35 U.S.C. § 103(a) requires that every element in the claim be shown in the cited reference, or at least, the Examiner must articulate why the stated feature is obvious. The Examiner has failed to do so.

[5] The Office Action of February 19, 2010 at page 5.

Further, Keshab and Little do not remedy the above-noted deficiencies of Danneels, Ishibashi, and Miao.

Accordingly, Applicant respectfully submits that independent claim 1 should be allowable because the cited references, alone or in combination, do not teach or suggest all of the elements of the claim. Claims 2-13, 15 and 16 should also be allowable at least by virtue of their dependency on independent claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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